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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,779	03/25/2004	Jae-Shik Kim	678-1193 (P11061)	5885

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EXAMINER

JACKSON, ANDRE L

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/808,779	KIM, JAE-SHIK	
	Examiner	Art Unit	
	Andre' L. Jackson	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23,25,27,28 and 30 is/are rejected.
- 7) ☒ Claim(s) 24,26 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/5/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by USPAP

2005/0198779 to Jung et al. Jung et al (Figs. 40 and 41) discloses a rotary hinge mechanism useable with a portable wireless terminal comprising;

a first rotation axis for opening and closing a folder (200) with respect to a terminal body (100) and a second rotation axis extending perpendicular to the first rotation axis and adapted to rotate relative to the first rotation axis, the hinge mechanism being adapted to rotate the folder about the second rotation axis in a state wherein the folder and the terminal body are opened; a first hinge housing (7100) coupled to the terminal body to rotate about the first rotation axis, the first hinge housing being formed with a fixing portion (7200) at its inner peripheral surface defining a fixing groove surrounded by ribs (Fig. 41) and an opening (bottom surface of first hinge housing) adapted to expose the fixing portion in a direction of the second rotation axis; a main shaft (7210) provided at one end with a fixing end having a shape corresponding to the fixing portion, the main shaft extending in the direction of the second rotation axis and being adapted to protrude outwardly through the opening of the first hinge housing at its other end thereof; and a second hinge housing (7220) rotatably coupled to the other end of the main shaft

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protruding outwardly from the first hinge housing and adapted to rotate about the second rotation axis, the second hinge housing being fixed to the folder.

As to claims 2 and 11, the rotary hinge mechanism's main shaft is adapted to penetrate from a lower end surface of the second hinge housing to an upper end surface thereof, thereby causing the one end to be protruded from the upper end surface of the second hinge housing, the protruding end of the main shaft being fastened with an e-ring (7250). The second hinge housing further comprises fastening arms (7222) extended outwardly from both sides thereof, the fastening arms being formed with fastening holes (7225) at their opposite ends, respectively.

As to claims 3-6, 8, 9 and 16-20, further the rotary hinge mechanism including a perforated hole (hollow bore) formed at a lower end surface of the second hinge housing, a shaft cam (7212) provided at the other end of the main shaft and adapted to be inserted through the perforated hole, thereby being positioned within the second hinge housing, the shaft cam being formed at its outer peripheral surface with at least one pair of stopper recesses (7211) arranged on opposite sides of the shaft cam, respectively; and stopper cams (7230) formed at their respective one ends with stopper projections (7231) having a shape corresponding to the stopper recesses, respectively, the stopper cams being adapted to stop a rotation of the second hinge housing by receiving an elastic force (7240) within the second hinge housing at a position that the stopper recesses and stopper projections come into close contact with each other, respectively, the stopper cams linearly reciprocating within the second hinge housing in accordance with the rotation of the second hinge housing.

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As to claims 7 and 10, the second hinge housing is formed with a sliding guide (7223) extending longitudinally at its inner peripheral surface, and each stopper cam is formed at its outer peripheral surface with a guide protrusion (square base at 7230) corresponding to the sliding guide, whereby the sliding guide and guide protrusion are adapted to guide linear reciprocating movements of the stopper cam.

As to claim 12, a flexible printed circuit or wires protrudes from an interior space of the folder and extends longitudinally at one side of the main shaft, thereby entering into the first hinge housing through the opening (7110) thereof, and the flexible printed circuit or wires is looped about the main shaft within the first hinge housing and drawn from one side end of the first hinge housing connecting the folder and terminal body [0366].

As to claim 14, additionally, a folder opening/closing hinge module (7300) is received within one side of the first hinge housing, the hinge module providing a rotating force to cause the folder to be opened if the folder is opened away from the terminal body exceeding a predetermined angle, and to cause the folder to be closed if the folder is away from the terminal body below the predetermined angle.

Claims 21-23, 25, 27, 28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by USPAP 2005/0198779 to Jung et al. Jung et al (Figs. 36-39) discloses a rotary hinge mechanism useable with a portable wireless terminal comprising;

a first rotation axis for opening and closing a folder (200) with respect to a terminal body (100) and a second rotation axis extending perpendicular to the first rotation axis and adapted to rotate relative to the first rotation axis, the hinge mechanism being adapted to rotate the folder about the second rotation axis in a state wherein the folder and terminal body are opened;

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a first hinge housing (6100) coupled to the terminal body to rotate about the first rotation axis, the first hinge housing being formed with a fixing groove (6111) surrounded by ribs (inner sidewalls) extended to a certain height at its inner peripheral surface, and an opening (6110) adapted to expose the fixing groove in a direction of the second rotation axis; a main shaft (6250) provided at one end with a fixing end (6252) having a shape corresponding to that of the fixing groove, the main shaft extending in the direction of the second rotation axis and adapted to protrude outwardly through the opening of the first hinge housing at the other end thereof; and a second hinge housing (6210) rotatably coupled to the other end of the main shaft protruding outwardly from the first hinge housing and adapted to rotate about the second rotation axis, the second hinge housing being fixed to the folder.

As to claims 22 and 23, the first hinge housing is further formed with a first guide rail (6112) extending in the direction of the second rotation axis at one side of the fixing groove, and a guide groove (concave openings) formed along the direction of the second rotation axis at one surface of the guide rail facing the fixing groove; and the main shaft is further formed at its one side with a second guide rail (6251) extended in the direction of the second rotation axis and adapted to be inserted into the guide groove (Fig. 37). Further, the first guide rail defines a slit or hole (6113), having a certain width, between its one side and an inner sidewall of the first hinge housing to engage a corresponding projection (6253) of the fixing end.

As to claims 25, 27, 28 and 30, the hinge mechanism includes a shaft cam (6222, 6232) formed at its outer peripheral surface positioned within the second hinge housing with at least two pairs of stopper surfaces (6224) arranged on opposite sides of the shaft cam, respectively; and stopper cams formed at their respective one ends with stopper recesses (6214) having a

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shape corresponding to corners formed by adjacent stopper surfaces, respectively, the stopper cams being adapted to stop a rotation of the second hinge housing by receiving a certain elastic force by coil spring (6240) within the second hinge housing at a position that the corners of the shaft cam and the stopper recesses come into close contact with each other, respectively, the stopper cams linearly reciprocating within the second hinge housing in accordance with the rotation of the second hinge housing, wherein the main shaft penetrates the second hinge housing.

Allowable Subject Matter

Claims 24, 26, 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Applicant's Arguments

Applicant's amendment filed on February 3, 2006 perfecting applicant's foreign priority papers (#2003-22098) to overcome the rejection in the previous Office Action of October 31, 2005 has been acknowledged since a certified translation of the foreign papers has been made of record in accordance with 37 CFR 1.55. However, the filing date of applicant's foreign priority document fails to predate the effective filing date of the prior art reference relied upon by the Examiner, thus the rejection made in the previous Office Action is maintained.

Moreover, applicant fails to include any evidence in the cited declaration of February 3, 2006 that applicant reduced to practice applicant's claimed invention before March 3, 2003.

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Such an omission is found to be non-persuasive, since antedating the prior art reference relied upon (Jung et al) is found incomplete.

As to applicant's remarks on page 2 of the above amendment that Jung et al fails to disclose or suggest all the limitations of applicant's claims, in particular, a first hinge housing formed with a fixing portion at its inner peripheral surface, and an opening adapted to expose the fixing portion in a direction of the second rotation axis is not persuasive. Applicant is reminded that the structural limitations are given the broadest reasonable interpretation in light of the specification. Thus, a first hinge housing **7100** formed with a fixing portion **7200** at its inner peripheral surface, and an opening (**bottom surface of the housing**) adapted to expose the fixing portion in a direction of the second rotation axis is anticipated by Jung et al.

As to applicant's remarks to claim 21 that Jung et al does not disclose the elements of claim 21 is found not to be persuasive. Again, applicant is reminded that the structural limitations are given the broadest reasonable interpretation in light of the specification. Thus, a first hinge housing **6100** formed with a fixing groove **6111** surrounded by ribs (**inwardly lips projecting inward toward the fixing groove as evidenced by figure 37**) extending to a certain height at its inner peripheral surface is anticipated by Jung et al.

Therefore, it is concluded that the Jung et al remains the closest prior art of record and for the reasoning and explanation stated above, applicant's claims are found not to be patentable over Jung et al. Accordingly, claims 1-23, 25, 27, 28 and 30 remain rejected and claims 24, 26 and 29 remain objected to.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' L. Jackson whose telephone number is (571) 272-7067. The examiner can normally be reached on Mon. - Fri. (9:30 am - 6 pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALJ

André L. Jackson
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Katherine Mitchell
Primary Examiner